

PATENT APPLICATION  
DOCKET NO.: 200209280-1

AMENDMENTS TO THE SPECIFICATION

Please replace Paragraph [0001] with the following amended paragraph:

[0001] This application discloses subject matter related to the subject matter disclosed in the following commonly owned co-pending patent application: "System and Method for Testing a Circuit Design," filed \_\_\_\_\_, Application No.: \_\_\_\_\_ filed October 1, 2003, Application No.: 10/676,859 (Docket Number 200209135-1), in the names of Ryan C. Thompson, John W. Maly, and Zachary S. Smith and "System and Method for Building a Test Case Including a Summary of Instructions," filed \_\_\_\_\_, Application No.: \_\_\_\_\_ filed October 1, 2003, Application No.: 10/676,864 (Docket Number 200208930-1), in the names of Ryan C. Thompson, John W. Maly, and Adam C. Brown, both of which are hereby incorporated by reference for all purposes.

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Please replace Paragraph [0005] with the following amended paragraph:

[0005] A system and method are disclosed that provide for generating a test case operable to test a circuit design using a plurality of threads. In one embodiment, a test code and state initialization engine, responsive to a random number sequence and a probability profile, generates test code. A distribution settings engine generates default distribution settings that specify a magnitude of at least one simulation parameter for each thread based on a default probability distribution profile. A knob-setting interface is included for ~~optionally~~ differentiating the default distribution settings. The ~~optionally~~ differentiated distribution settings are then associated with the test code in order to generate the test case that exercises a circuit design model of the circuit design.

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Please replace Paragraph [0018] with the following amended paragraph:

[0018] If the test files are valid, i.e., the RTL model 220 verifies the architectural simulator model 222 and the test files 224 do not contain illegal test behavior, the test files 224 become valid test results 228 which provide detailed information regarding each exercised aspect of the target processor core's execution behavior. On the other hand, if the test files 224 indicate processor model inconsistencies between the RTL model 220 and architectural simulator 222, then a debugging operation 230 may be required with respect to the processor models. Debugging the architectural simulator and RTL models may involve diagnosing and resolving the problem according to conventional techniques. For example, by examining the test case 216, test files 224, and underlying HDL-based code of the RTL model 220, a clear understanding of the symptoms of the problem may be achieved. Then all of the variables that affect the problem may be identified and the variables progressively eliminated until the root cause of the problem is isolated. Once the root cause is isolated, the HDL-based code of the models may be appropriately modified to eliminate the problem. Further information relative to debugging the

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processor models may be found in the aforementioned patent application entitled: "System and Method for Building a Test Case Including a Summary of Instructions," filed \_\_\_\_\_, Application No.: \_\_\_\_\_, filed October 1, 2003, Application No.: 10/676,864 (Docket Number 200208930-1), in the names of Ryan C. Thompson, John W. Maly, and Adam C. Brown, which is hereby incorporated by reference for all purposes. If the test files 224 indicate the presence of an illegal test behavior, however, the ATG 202 requires a debugging operation 232 as described more fully in the following co-pending patent application: "System and Method for Testing a Circuit Design," filed \_\_\_\_\_, Application No.: \_\_\_\_\_, filed October 1, 2003, Application No.: 10/676,859 (Docket Number 200209135-1), in the names of Ryan C. Thompson, John W. Maly, and Zachary S. Smith, which is hereby incorporated by reference for all purposes.